

Section XVI – Chapter 85

Electrical Machinery and Equipment and Parts Thereof; Sound Recorders and Reproducers, Television Image and Sound Recorders and Reproducers, and Parts and Accessories of Such Articles

Notes

1. This chapter does not cover:

- (a). Electrically warmed blankets, bed pads, foot muffs or the like; electrically warmed clothing, footwear or ear pads or other electrically warmed articles worn on or about the person;
- (b). Articles of glass of heading 7011; or
- (c). Electrically heated furniture of chapter 94.

2. Headings 8501 to 8504 do not apply to goods described in heading 8511, 8512, 8540, 8541 or 8542.

However, metal tank mercury arc rectifiers remain classified in heading 8504.

3. Heading 8509 covers only the following electromechanical machines of the kind commonly used for domestic purposes:

- (a). Vacuum cleaners, including dry and wet vacuum cleaners, floor polishers, food grinders, processors or mixers, and fruit or vegetable juice extractors, of any weight;
- (b). Other machines provided the weight of such machines does not exceed 20 kg, exclusive of extra interchangeable parts or detachable auxiliary devices.

The heading does not, however, apply to fans or ventilating or recycling hoods incorporating a fan, whether or not fitted with filters (heading 8414), centrifugal clothes dryers (heading 8421), dishwashing machines (heading 8422), household washing machines (heading 8450), roller or other ironing machines (heading 8420 or 8451), sewing machines (heading 8452), electric scissors (heading 8467) or to electrothermic appliances (heading 8516).

4. For the purposes of heading 8534 "printed circuits" are circuits obtained by forming on an insulating base, by any printing process (for example, embossing, plating-up, etching) or by the "film circuit" technique, conductor elements, contacts or other printed components (for example, inductances, resistors, capacitors) alone or interconnected according to a pre-established pattern, other than elements which can produce, rectify, modulate or amplify an electrical signal (for example, semiconductor elements).

The term "printed circuits" does not cover circuits combined with elements other than those obtained during the printing process, nor does it cover individual, discrete resistors, capacitors or inductances. Printed circuits may, however, be fitted with nonprinted connecting elements.

Thin- or thick-film circuits comprising passive and active elements obtained during the same technological process are to be classified in heading 8542.

5. For the purposes of headings 8541 and 8542:

- (a) "Diodes, transistors and similar semiconductor devices" are semiconductor devices the operation of which depends on variations in resistivity on the application of an electric field;
- (b) "Electronic integrated circuits and microassemblies" are:
 - (i). Monolithic integrated circuits in which the circuit elements (diodes, transistors, resistors, capacitors, interconnections, etc.) are created in the mass (essentially) and on the surface of a semiconductor material (doped silicon, for example) and are inseparably associated;
 - (ii). Hybrid integrated circuits in which passive elements (resistors, capacitors, interconnections, etc.) obtained by thin- or thick-film technology and active elements (diodes, transistors, monolithic integrated circuits, etc.) obtained by semiconductor technology, are combined to all intents and purposes indivisibly, on a single insulating substrate (glass, ceramic, etc.). These circuits may also include discrete components;
 - (iii). Microassemblies of the molded module, micromodule or similar types, consisting of discrete, active or both active and passive, components which are combined and interconnected.

For the classification of the articles defined in this note, headings 8541 and 8542 shall take precedence over any other heading in the export classification schedule which might cover them by reference to, in particular, their function.

6. Records, tapes and other media of heading 8523 or 8524 remain classified in those headings, when exported with the apparatus for which they are intended.

This note does not apply to such media when they are exported with articles other than the apparatus for which they are intended.

For the purposes of this note, the term "apparatus for which they are intended" refers to apparatus which reads or plays the media or which records or writes on the media.

Section XVI – Chapter 85

7. For the purposes of heading 8548, "spent primary cells, spent primary batteries and spent electric storage batteries" are those which are neither usable as such because of breakage, cutting up, wear or other reasons, nor capable of being recharged.

Subheading Note

1. Subheadings 8519.92 and 8527.12 cover only cassette players with built-in amplifier, without built-in loudspeaker, capable of operating without an external source of electric power and the dimensions of which do not exceed 170 mm x 100 mm x 45 mm.
2. For the purposes of subheading 8542.10, the term "smart cards" means cards which have embedded in them an electronic integrated circuit (microprocessor) of any type in the form of a chip and which may or may not have a magnetic stripe.

Statistical U.S. Notes

1. For the purposes of headings 8501 and 8503, 746 watts (W) is taken to be equivalent to 1 horsepower (hp).
2. For the purposes of subheading 8516.72, the term "toasters" includes toaster-ovens which are designed essentially for toasting bread but can also bake small items, such as potatoes.
3. For the purposes of heading 8525 the term "transceivers" refers to combinations of radio transmitting and receiving equipment in a common housing, employing common circuit components for both transmitting and receiving, and which are not capable of simultaneously receiving and transmitting.
4. For the purpose of heading 8528 the video display diagonal is determined by measuring the maximum straight line dimension across that part of the faceplate used for displaying video.
5. For statistical reporting purposes under subheading 8539.10, the size of a sealed beam lamp unit is determined by measuring the largest diagonal dimension across the faceplate.
6. For the purpose of the export schedule the unit of quantity "fiber m", (fbr m) as it pertains to optical fiber bundles, cables, ribbons, etc., is determined by multiplying the number of individual fibers contained therein by the length in meters.
7. For statistical reporting purposes under subheadings 8525.10.60, 8525.20.30 and 8527.90.97, the lowest operating frequency will determine the classification.

Revised 01/01/03

Section XVI – Chapter 85

8. For statistical reporting purposes under 8532.22, the diameter of aluminum electrolytic capacitors not having a circular cross section shall be a maximum dimension measured through the center.
9. For statistical reporting purposes in subheading 8542.21.80 the following definitions will apply:
 - (a). The term "static read–write random access (SRAM)" refers to integrated circuit memory devices in which the memory cells may be addressed in any sequence, randomly, for the storage or retrieval of data and in which the stored information is retained without further intervention as long as electric power is supplied to the device.
 - (b). The term "volatile memory" refers to integrated circuit memory devices which lose all stored information in the absence of electric power.
 - (c). The term "dynamic read–write random access (DRAM)" refers to integrated circuit memory devices in which the memory cells may be addressed in any sequence, randomly, for the storage or retrieval of data and in which the stored information must continually be refreshed in order to hold the information in memory.
 - (d). The term "electrically erasable programmable read–only memory (EEPROM)" refers to user programmable integrated circuit memory devices which retain the stored information in the absence of electric power and in which the stored information may be altered electrically.
 - (e). The term "erasable (except electrically) programmable read–only memory (EPROM)" refers to user programmable integrated circuit memory devices which retain the stored information in the absence of electric power and from which the stored information may be removed (except electrically). Such devices are usually erased by exposure to ultraviolet light after which they may be rewritten with new information.
 - (f). The term "microprocessor" refers to a central processing unit (CPU) fabricated as a monolithic integrated circuit.
10. For the purpose of subheading 8527.90.86, the term "paging receivers" includes paging alert devices designed merely to emit a sound or visual signal (e.g., flashing light) upon the reception of a preset radio signal.

Revised 01/01/03

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8501	Electric motors and generators (excluding generating sets):	
8501.10	Motors of an output not exceeding 37.5 W:	
	Of under 18.65 W (1/40 hp):	
8501.10.3000	AC	No.
	DC:	
8501.10.4040	Brushless	No.
8501.10.4060	Other	No.
8501.10.4080	Other	No.
	Of 18.65 W (1/40 hp) or more but not exceeding 37.5 W (1/20 hp):	
8501.10.6020	AC	No.
	DC:	
8501.10.6040	Brushless	No.
8501.10.6060	Other	No.
8501.10.6080	Other	No.
8501.20	Universal AC/DC motors of an output exceeding 37.5 W:	
8501.20.2000	Exceeding 37.5 W (1/20 hp) but not exceeding 74.6 W (1/10 hp)	No.
8501.20.3000	Exceeding 74.6 W (1/10 hp) but under 746 W (1 hp)	No.
8501.20.6000	Other	No.
	Other DC motors; DC generators:	
8501.31	Of an output not exceeding 750 W:	
	Motors:	
8501.31.2000	Exceeding 37.5 W (1/20 hp) but not exceeding 74.6 W (1/10 hp)	No.
8501.31.3000	Exceeding 74.6 W (1/10 hp) but under 746 W (1 hp)	No.
8501.31.6000	Other	No.
8501.31.8000	Generators	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8501 (con.)	Electric motors and generators (excluding generating sets) (con.):	
	Other DC motors; DC generators (con.):	
8501.32	Of an output exceeding 750 W but not exceeding 75 kW:	
	Motors:	
8501.32.2000	Exceeding 750 W (1.005 hp) but not exceeding 14.92 kW (20 hp)	No.
8501.32.4000	Other	No.
8501.32.6000	Generators	No.
8501.33	Of an output exceeding 75 kW but not exceeding 375 kW:	
	Motors:	
8501.33.2000	Exceeding 75 kW (100 hp) but under 149.2 kW (200 hp)	No.
8501.33.3000	149.2 kW (200 hp) but not exceeding 150 kW (201 hp)	No.
	Other:	
8501.33.4040	Exceeding 150 kW (201 hp) but not exceeding 373 kW (500 hp)	No.
8501.33.4060	Other	No.
8501.33.6000	Generators	No.
8501.34	Of an output exceeding 375 kW:	
8501.34.3000	Motors	No.
8501.34.6000	Generators	No.
8501.40	Other AC motors, single-phase:	
	Of an output exceeding 37.5 W (1/20 hp) but not exceeding 74.6 W (1/10 hp):	
8501.40.2020	Gear motors	No.
8501.40.2040	Other	No.
	Of an output exceeding 74.6 W (1/10 hp) but under 746 W (1hp):	
8501.40.3020	Gear motors	No.
8501.40.3040	Other	No.
	Other:	
8501.40.6020	Gear motors	No.
8501.40.6040	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8501 (con.)	Electric motors and generators (excluding generating sets) (con.):	
	Other AC motors, multi-phase:	
8501.51	Of an output not exceeding 750 W:	
	Exceeding 37.5 W (1/20 hp) but not exceeding 74.6 W (1/10 hp):	
8501.51.2020	Gear motors	No.
8501.51.2040	Other	No.
	Exceeding 74.6 W (1/10 hp) but under 746 W (1 hp):	
8501.51.3020	Gear motors	No.
8501.51.3040	Other	No.
	Other:	
8501.51.6020	Gear motors	No.
8501.51.6040	Other	No.
8501.52	Of an output exceeding 750 W but not exceeding 75 kW:	
8501.52.4000	Exceeding 750 W (1.005 hp) but not exceeding 14.92 kW (20 hp)	No.
8501.52.8000	Other	No.
8501.53	Of an output exceeding 75 kW:	
8501.53.4000	Exceeding 75 kW (100 hp) but under 149.2 kW (200 hp)	No.
8501.53.6000	149.2 kW (200 hp) or more but not exceeding 150 kW (201 hp)	No.
	Other:	
8501.53.8040	Exceeding 150 kW (201 hp) but not exceeding 373 kW (500 hp)	No.
8501.53.8060	Other	No.
	AC generators (alternators):	
8501.61.0000	Of an output not exceeding 75 kVA	No.
8501.62.0000	Of an output exceeding 75 kVA but not exceeding 375 kVA	No.
8501.63.0000	Of an output exceeding 375 kVA but not exceeding 750 kVA	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8501 (con.)	Electric motors and generators (excluding generating sets) (con.):	
	AC generators (alternators) (con.):	
8501.64	Of an output exceeding 750 kVA:	
8501.64.0020	Exceeding 750 kVA but not exceeding 10,000 kVA.	No.
8501.64.0030	Exceeding 10,000 kVA but not exceeding 40,000 kVA ...	No.
8501.64.0050	Other	No.
8502	Electric generating sets and rotary converters:	
	Generating sets with compression-ignition internal combustion piston engines (diesel or semi-diesel engines):	
8502.11.0000	Of an output not exceeding 75 kVA	No.
8502.12.0000	Of an output exceeding 75 kVA but not exceeding 375 kVA	No.
8502.13	Of an output exceeding 375 kVA:	
8502.13.0020	Exceeding 375 kVA but not exceeding 1,000 kVA	No.
8502.13.0040	Exceeding 1,000 kVA	No.
8502.20	Generating sets with spark-ignition internal combustion piston engines:	
8502.20.0040	Of an output not exceeding 5 kW	No.
8502.20.0080	Of an output exceeding 5 kW	No.
	Other generating sets:	
8502.31.0000	Wind-powered	No.
8502.39.0000	Other	No.
8502.40.0000	Electric rotary converters	No.
8503	Parts suitable for use solely or principally with machines of heading 8501 or 8502:	
8503.00.2000	Commutators	No.
	Other:	
8503.00.5000	Parts of motors (other than commutators)	X
8503.00.6040	Parts of generators (other than commutators)	X
8503.00.6060	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8504	Electrical transformers, static converters (for example, rectifiers) and inductors; power supplies for automatic data processing machines or units thereof of heading 8471; parts thereof:	
8504.10.0000	Ballasts for discharge lamps or tubes	No.
	Liquid dielectric transformers:	
8504.21	Having a power handling capacity not exceeding 650 kVA:	
8504.21.0020	Having a power handling capacity not exceeding 50 kVA	No.
8504.21.0040	Having a power handling capacity exceeding 50 kVA but not exceeding 100 kVA	No.
8504.21.0060	Having a power handling capacity exceeding 100 kVA but not exceeding 500 kVA	No.
8504.21.0080	Having a power handling capacity exceeding 500 kVA but not exceeding 650 kVA	No.
8504.22	Having a power handling capacity exceeding 650 kVA but not exceeding 10,000 kVA:	
8504.22.0040	Having a power handling capacity exceeding 650 kVA but not exceeding 2,500 kVA	No.
8504.22.0080	Having a power handling capacity exceeding 2,500 kVA but not exceeding 10,000 kVA	No.
8504.23	Having a power handling capacity exceeding 10,000 kVA:	
8504.23.0040	Having a power handling capacity exceeding 10,000 kVA but not exceeding 100,000 kVA	No.
8504.23.0080	Having a power handling capacity exceeding 100,000 kVA	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8504 (con.)	Electrical transformers, static converters (for example, rectifiers) and inductors; power supplies for automatic data, etc. –(con.):	
	Other transformers:	
8504.31	Having a power handling capacity not exceeding 1 kVA:	
8504.31.2000	Unrated No.	
	Other:	
	Having a power handling capacity less than 1 kVA:	
8504.31.4035	Having a power handling capacity less than 40 VA No.	
8504.31.4065	Having a power handling capacity 40 VA or greater No.	
8504.31.6000	Having a power handling capacity of 1 kVA No.	
8504.32.0000	Having a power handling capacity exceeding 1 kVA but not exceeding 16 kVA No.	
8504.33	Having a power handling capacity exceeding 16 kVA but not exceeding 500 kVA:	
8504.33.0020	Having a power handling capacity exceeding 16 kVA but not exceeding 50 kVA No.	
8504.33.0040	Having a power handling capacity exceeding 50 kVA but not exceeding 500 kVA No.	
8504.34.0000	Having a power handling capacity exceeding 500 kVA No.	
8504.40	Static converters; power supplies for automatic data processing machines or units thereof of heading 8471:	
	Power supplies for automatic data processing machines:	
	Suitable for physical incorporation into automatic data processing machines or units thereof of heading 8471:	
8504.40.6001	With a power output not exceeding 50 W No.	
8504.40.6007	With a power output exceeding 50 W but not exceeding 150 W No.	

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8504 (con.)	Electrical transformers, static converters (for example, rectifiers) and inductors; power supplies for automatic data, etc. –(con.):	
8504.40 (con.)	Static converters; power supplies for automatic data processing machines or units thereof of heading 8471 (con.):	
	Power supplies for automatic data processing machines (con.):	
	Suitable for physical incorporation into automatic data processing machines or units thereof etc. – (con.):	
8504.40.6012	With a power output exceeding 150 W but not exceeding 500 W	No.
8504.40.6018	Other	No.
	Other:	
8504.40.7001	With a power output not exceeding 50 W	No.
8504.40.7007	With a power output exceeding 50 W but not exceeding 150 W	No.
8504.40.7012	With a power output exceeding 150 W but not exceeding 500 W	No.
8504.40.7018	Other	No.
8504.40.8500	For telecommunications apparatus	No.
	Other:	
	Rectifiers and rectifying apparatus:	
	Power supplies:	
8504.40.9510	With a power output not exceeding 50 W	No.
8504.40.9520	With a power output exceeding 50 W but not exceeding 150 W	No.
8504.40.9530	With a power output exceeding 150 W but not exceeding 500 W	No.
8504.40.9540	Other	No.
8504.40.9550	Other	X
8504.40.9570	Inverters	No.
8504.40.9580	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8504 (con.)	Electrical transformers, static converters (for example, rectifiers) and inductors; power supplies for automatic data, etc.--(con.):	
8504.50.0000	Other inductors	No.
8504.90	Parts:	
8504.90.0020	Of transformers	X
8504.90.0080	Other	X
8505	Electromagnets; permanent magnets and articles intended to become permanent magnets after magnetization; electro-magnetic or permanent magnet chucks, clamps and similar holding devices; electromagnetic couplings, clutches and brakes; electromagnetic lifting heads; parts thereof: Permanent magnets and articles intended to become permanent magnets after magnetization:	
8505.11.0000	Of metal	No.
8505.19.0000	Other	No.
8505.20.0000	Electromagnetic couplings, clutches and brakes	X
8505.30.0000	Electromagnetic lifting heads	X
8505.90	Other, including parts:	
8505.90.4000	Work holders and parts thereof	X
8505.90.8000	Other	X
8506	Primary cells and primary batteries; parts thereof:	
8506.10.0000	Manganese dioxide	No.
8506.30	Mercuric oxide:	
8506.30.1000	Having an external volume not exceeding 300 cm ³	No.
8506.30.5000	Other	No.
8506.40	Silver oxide:	
8506.40.1000	Having an external volume not exceeding 300 cm ³	No.
8506.40.5000	Other	No.
8506.50.0000	Lithium	No.
8506.60.0000	Air-zinc	No.
8506.80.0000	Other primary cells and primary batteries	No.
8506.90.0000	Parts	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8507	Electric storage batteries, including separators therefor, whether or not rectangular (including square); parts thereof:	
8507.10	Lead–acid storage batteries, of a kind used for starting piston engines:	
	12 V batteries:	
8507.10.0030	Not exceeding 6 kg in weight	No. kg
8507.10.0060	Exceeding 6 kg in weight	No. kg
8507.10.0090	Other	No. kg
8507.20	Other lead–acid storage batteries:	
8507.20.0030	6 V batteries	No. kg
8507.20.0040	12 V batteries	No. kg
8507.20.0060	36 V batteries	No. kg
8507.20.0090	Other	No. kg
8507.30.0000	Nickel–cadmium storage batteries	No.
8507.40.0000	Nickel–iron storage batteries	No.
8507.80.0000	Other storage batteries	No.
8507.90	Parts:	
8507.90.4000	Of lead–acid storage batteries	X
8507.90.8000	Other	X
8509	Electromechanical domestic appliances, with self–contained electric motor; parts thereof:	
8509.10	Vacuum cleaners, including dry and wet vacuum cleaners:	
8509.10.0020	Portable, hand–held	No.
8509.10.0040	Other	No.
8509.20.0000	Floor polishers	No.
8509.30.0000	Kitchen waste disposers (disposals)	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8509 (con.)	Electromechanical domestic appliances, with self-contained electric motor; parts thereof (con.):	
8509.40	Food grinders, processors and mixers; fruit or vegetable juice extractors:	
8509.40.0020	Food mixers (including blenders)	No.
8509.40.0030	Juice extractors	No.
8509.40.0040	Food grinders and processors	No.
8509.80	Other appliances:	
8509.80.0040	Can openers (including combination units)	No.
8509.80.0060	Humidifiers	No.
8509.80.0091	Other	No.
8509.90	Parts:	
	Parts of vacuum cleaners and floor polishers:	
8509.90.2000	Parts of vacuum cleaners	X
8509.90.3000	Parts of floor polishers	X
8509.90.4050	Other parts	X
8510	Shavers, hair clippers and hair-removing appliances, with self-contained electric motor; parts thereof:	
8510.10.0000	Shavers	No.
8510.20.0000	Hair clippers	No.
8510.30.0000	Hair-removing appliances	No.
8510.90	Parts:	
	Parts of shavers:	
8510.90.1000	Blades and cutting heads	X
8510.90.2000	Other parts of shavers	X
8510.90.3000	Parts of hair clippers	X
8510.90.5500	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8511	Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines (for example, ignition magnetos, magneto-dynamos, ignition coils, spark plugs and glow plugs, starter motors); generators (for example, dynamos, alternators) and cut-outs of a kind used in conjunction with such engines; parts thereof:	
8511.10.0000	Spark plugs	Hundr
8511.20.0000	Ignition magnetos; magneto-dynamos; magnetic flywheels	X
8511.30	Distributors; ignition coils:	
8511.30.0040	Distributors	No.
8511.30.0080	Ignition coils	No.
8511.40.0000	Starter motors and dual purpose starter-generators	No.
8511.50.0000	Other generators	No.
8511.80	Other equipment:	
	Voltage and voltage-current regulators with cut-out relays:	
8511.80.2000	Designed for use on 6, 12 or 24 V systems	No.
8511.80.4000	Other	No.
8511.80.6000	Other	X
8511.90	Parts:	
8511.90.6020	Distributor contact (breaker point) sets	No.
8511.90.8000	Other	X
8512	Electrical lighting or signaling equipment (excluding articles of heading 8539), windshield wipers, defrosters and demisters, of a kind used for cycles or motor vehicles; parts thereof:	
8512.10.0000	Lighting or visual signaling equipment of a kind used on bicycles	X
8512.20	Other lighting or visual signaling equipment:	
8512.20.2000	Lighting equipment (including interior lights)	X
8512.20.4000	Visual signaling equipment (including braking lights and turning signal lights)	X
8512.30	Sound signaling equipment:	
8512.30.0030	Radar detectors of a kind used in motor vehicles	No.
8512.30.0050	Other	X
8512.40	Windshield wipers, defrosters and demisters:	
8512.40.2000	Defrosters and demisters	X
8512.40.4000	Windshield wipers	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8512 (con.)	Electrical lighting or signaling equipment (excluding articles of heading 8539), windshield wipers, defrosters etc. –(con.):	
8512.90	Parts:	
8512.90.2000	Of signaling equipment	X
8512.90.5000	Of lighting equipment	X
8512.90.8000	Other	X
8513	Portable electric lamps designed to function by their own source of energy (for example, dry batteries, storage batteries, magnetos), other than lighting equipment of heading 8512; parts thereof:	
8513.10.0000	Lamps	X
8513.90.0000	Parts	X
8514	Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss; parts thereof:	
8514.10.0000	Resistance heated furnaces and ovens	No.
8514.20	Furnaces and ovens functioning by induction or dielectric loss:	
	Microwave ovens:	
8514.20.4000	For making hot drinks, or for cooking or heating food ...	No.
8514.20.6000	Other	No.
8514.20.8000	Other	No.
8514.30	Other furnaces and ovens:	
8514.30.2000	For diffusion, oxidation or annealing of semiconductor wafers	No.
8514.30.4000	Other	No.
8514.40.0000	Other equipment for the heat treatment of materials by induction or dielectric loss	X
8514.90	Parts:	
8514.90.4000	Of microwave ovens	X
8514.90.8000	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8515	Electric (including electrically heated gas), laser or other light or photon beam, ultrasonic, electron beam, magnetic pulse or plasma arc soldering, brazing or welding machines and apparatus, whether or not capable of cutting; electric machines and apparatus for hot spraying of metals or cermets; parts thereof:	
	Brazing or soldering machines and apparatus:	
8515.11.0000	Soldering irons and guns	No.
8515.19.0000	Other	No.
	Machines and apparatus for resistance welding of metal:	
8515.21.0000	Fully or partly automatic	No.
8515.29.0000	Other	No.
	Machines and apparatus for arc (including plasma arc) welding of metals:	
8515.31.0000	Fully or partly automatic	No.
8515.39	Other:	
	Non-rotating type:	
8515.39.0020	AC transformer type	No.
8515.39.0040	Other	No.
8515.39.0060	Rotating type	No.
8515.80	Other machines and apparatus:	
8515.80.0040	Ultrasonic welding machines	No.
8515.80.0080	Other	No.
8515.90	Parts:	
8515.90.2000	Of welding machines and apparatus	X
8515.90.4000	Other parts	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8516	Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric flatirons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545; parts thereof:	
8516.10	Electric instantaneous or storage water heaters and immersion heaters:	
8516.10.0040	Storage water heaters	No.
8516.10.0080	Other water heaters and immersion heaters	No.
	Electric space heating apparatus and electric soil heating apparatus:	
8516.21.0000	Storage heating radiators	No.
8516.29.0000	Other	X
	Electrothermic hairdressing or hand-drying apparatus:	
8516.31.0000	Hair dryers	No.
8516.32.0000	Other hairdressing apparatus	X
8516.33.0000	Hand-drying apparatus	No.
8516.40.0000	Electric flatirons	No.
8516.50.0000	Microwave ovens	No.
8516.60	Other ovens; cooking stoves, ranges, cooking plates, boiling rings, grillers and roasters:	
8516.60.4000	Cooking stoves, ranges and ovens	No.
8516.60.6000	Other	No.
	Other electrothermic appliances:	
8516.71.0000	Coffee or tea makers	No.
8516.72.0000	Toasters	No.
8516.79.0000	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8516 (con.)	Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil etc. –(con.):	
8516.80.0000	Electric heating resistors	X
8516.90	Parts:	
8516.90.1700	Of microwave ovens	X
8516.90.2700	Of cooking stoves, ranges and ovens	X
8516.90.9500	Other	X
8517	Electrical apparatus for line telephony or line telegraphy, including line telephone sets with cordless handsets and telecommunication apparatus for carrier-current line systems or for digital line systems; videophones; parts thereof:	
	Telephone sets; videophones:	
8517.11.0000	Line telephone sets with cordless handsets	No.
8517.19.0000	Other	No.
	Facsimile machines and teleprinters:	
8517.21.0000	Facsimile machines	No.
8517.22.0000	Teleprinters	No.
8517.30	Telephonic or telegraphic switching apparatus:	
	Telephonic switching apparatus (including private branch exchange and key system switching apparatus):	
8517.30.1500	Central office switching apparatus	No.
8517.30.2000	Private branch exchange switching apparatus	No.
8517.30.2500	Electronic key telephone systems	No.
8517.30.3000	Other	No.
8517.30.5000	Other	X
8517.50	Other apparatus, for carrier-current line systems or for digital line systems:	
8517.50.1000	Modems, of a kind used with data processing machines of heading 8471	No.
	Other:	
8517.50.5000	Telephonic	X
	Telegraphic:	
8517.50.6000	For carrier-current line systems	X
8517.50.9000	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8517 (con.)	Electrical apparatus for line telephony or line telegraphy, including line telephone sets with cordless handsets etc. –(con.):	
8517.80	Other apparatus:	
	Telephonic:	
8517.80.1010	Intercom systems	No.
8517.80.1020	Other	X
8517.80.2000	Telegraphic	X
8517.90	Parts:	
	Of telephonic apparatus:	
8517.90.2000	Of telephonic switching apparatus	X
8517.90.5000	Other	X
8517.90.9000	Of telegraphic apparatus	X
8518	Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio–frequency electric amplifiers; electric sound amplifier sets; parts thereof:	
8518.10.0000	Microphones and stands therefor	X
	Loudspeakers, whether or not mounted in their enclosures:	
8518.21.0000	Single loudspeakers, mounted in their enclosures	No.
8518.22.0000	Multiple loudspeakers, mounted in the same enclosure	No.
8518.29.0000	Other	No.
8518.30	Headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers:	
8518.30.1000	Telephone handsets	No.
8518.30.2000	Other	No.
8518.40	Audio–frequency electric amplifiers:	
8518.40.1000	For use as repeaters in line telephony	No.
8518.40.2000	Other	No.
8518.50.0000	Electric sound amplifier sets	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8518 (con.)	Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones etc. –(con.):	
8518.90	Parts:	
8518.90.1000	Of telephone handsets and repeaters	X
8518.90.3000	Other	X
8519	Turntables, record players, cassette players and other sound reproducing apparatus, not incorporating a sound recording device:	
8519.10.0000	Coin- or token- operated record players	No.
	Other record players:	
8519.21.0000	Without loudspeaker	No.
8519.29.0000	Other	No.
	Turntables:	
8519.31.0000	With automatic record changing mechanism	No.
8519.39.0000	Other	No.
8519.40.0000	Transcribing machines	No.
	Other sound reproducing apparatus:	
8519.92.0000	Pocket-size cassette players	No.
8519.93	Other, cassette type:	
8519.93.4000	Designed exclusively for motor-vehicle installation	No.
8519.93.8000	Other	No.
8519.99	Other:	
8519.99.0030	Cartridge-type tape players	No.
8519.99.0070	Other	No.
8520	Magnetic tape recorders and other sound recording apparatus, whether or not incorporating a sound reproducing device:	
8520.10.0000	Dictating machines not capable of operating without an external source of power	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8520 (con.)	Magnetic tape recorders and other sound recording apparatus, whether or not incorporating a sound reproducing device (con.):	
8520.20.0000	Telephone answering machines	No.
	Other magnetic tape recorders incorporating sound reproducing apparatus:	
8520.32.0000	Digital audio type	No.
8520.33.0000	Other, cassette type	No.
8520.39.0000	Other	No.
8520.90	Other:	
8520.90.0040	Optical disk recorders	No.
8520.90.0080	Other	No.
8521	Video recording or reproducing apparatus; whether or not in- corporating a video tuner:	
8521.10.0000	Magnetic tape-type	No.
8521.90.0000	Other	No.
8522	Parts and accessories suitable for use solely or principally with the apparatus of headings 8519 to 8521:	
8522.10.0000	Pickup cartridges	No.
8522.90	Other:	
8522.90.0010	Magnetic recording and reproducing heads	X
8522.90.0090	Other	X
8523	Prepared unrecorded media for sound recording or similar re- cording of other phenomena, other than products of chapter 37:	
	Magnetic tapes:	
8523.11.0000	Of a width not exceeding 4 mm	No.
8523.12	Of a width exceeding 4 mm but not exceeding 6.5 mm:	
	Suitable for audio recording:	
8523.12.0010	In cartridges	No.
8523.12.0020	Other	X
8523.12.0040	Suitable for video recording	X
8523.12.0060	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8523 (con.)	Prepared unrecorded media for sound recording or similar re- cording of other phenomena, etc. –(con.):	
	Magnetic tapes (con.):	
8523.13	Of a width exceeding 6.5 mm:	
8523.13.0020	Suitable for audio recording	X
	Suitable for video recording:	
8523.13.0040	In cassettes	No.
8523.13.0060	Other	X
8523.13.0080	Other	X
8523.20.0000	Magnetic discs	No.
8523.30.0000	Cards incorporating a magnetic stripe	No.
8523.90.0000	Other	X
8524	Records, tapes and other recorded media for sound or other similarly recorded phenomena, including matrices and masters for the production of records, but excluding products of chapter 37:	
8524.10	Phonograph records:	
8524.10.0020	Stereophonic and quadraphonic, at 33 1/3 r.p.m.	No.
8524.10.0040	Other	No.
	Discs for laser reading systems:	
8524.31	For reproducing phenomena other than sound or image:	
8524.31.0030	Prepackaged software for automatic data processing machines, of a kind sold at retail	No. ①
8524.31.0070	Other	No. ①
8524.32.0000	For reproducing sound only	No.
8524.39	Other:	
8524.39.4000	For reproducing representations of instructions, data, sound, and image, recorded in a machine readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an auto- matic data processing machine; proprietary format recorded discs	No.
8524.39.8000	Other	No.
8524.40.0000	Magnetic tapes for reproducing phenomena other than sound or image	No.

Revised 01/01/03

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8524 (con.)	Records, tapes and other recorded media for sound or other similarly recorded phenomena, including matrices etc. –(con.):	
	Other magnetic tapes:	
8524.51	Of a width not exceeding 4 mm:	
8524.51.1000	News sound recordings relating to current events	No.
	Other recordings:	
8524.51.3040	Sound recordings on cassette tapes	No.
8524.51.3080	Other	No.
8524.52	Of a width exceeding 4 mm but not exceeding 6.5 mm:	
	Video tape recordings:	
8524.52.1040	In cassettes	No.
8524.52.1080	Other	No.
8524.52.2000	Other tape recordings	No.
8524.53	Of a width exceeding 6.5 mm:	
	Video tape recordings:	
8524.53.1040	Of a width not exceeding 16 mm, in cassettes	No.
8524.53.1080	Other	No.
8524.53.2000	Other tape recordings	No.
8524.60.0000	Cards incorporating a magnetic stripe	No.
	Other:	
8524.91	For reproducing phenomena other than sound or image:	
8524.91.0030	Prepackaged software for automatic data processing machines, of a kind sold at retail	No. ①
8524.91.0070	Other	No. ①
8524.99.0000	Other	No.

Revised 01/01/03

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8525	Transmission apparatus for radiotelephony, radiotelegraphy, radiobroadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras; still image video cameras and other video camera recorders; digital cameras:	
8525.10	Transmission apparatus:	
	Television:	
8525.10.2010	Apparatus for the reception of television signals relayed by television satellite	No.
8525.10.2050	Other	X
	Other:	
	Transmitters:	
8525.10.6010	For use in civil aircraft	No.
	Other:	
	Capable of transmitting on frequencies:	
8525.10.6030	Not exceeding 30 MHZ	No.
8525.10.6050	Exceeding 30 MHZ but not exceeding 400 MHZ	No.
8525.10.6070	Exceeding 400 MHZ but not exceeding 1,000 MHZ	No.
8525.10.6090	Exceeding 1,000 MHZ	No.
	Other (transmission apparatus):	
8525.10.8020	For use in civil aircraft	X
8525.10.8040	Other	X
8525.20	Transmission apparatus incorporating reception apparatus:	
	Transceivers:	
8525.20.1000	Citizens Band (CB)	No.
8525.20.2000	Low-power radiotelephonic transceivers operating on frequencies from 49.82 to 49.90 MHZ (including walkie talkies)	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8525 (con.)	Transmission apparatus for radiotelephony, radiotelegraphy, radiobroadcasting or television, etc. –(con.):	
8525.20 (con.)	Transmission apparatus incorporating reception apparatus (con.):	
	Transceivers (con.):	
	Other:	
8525.20.3005	For use in civil aircraft	No.
	Other:	
8525.20.3030	Hand-held	No.
	Other:	
8525.20.3040	Marine VHF-FM	No.
	Other (transceivers):	
8525.20.3042	For frequencies not exceeding 30 MHZ	No.
8525.20.3045	For frequencies exceeding 30 MHZ but not exceeding 400 MHZ	No.
8525.20.3055	For frequencies exceeding 400 MHZ	No.
	Other:	
8525.20.9020	Radio telephones designed for installation in motor vehicles for the public cellular radio telecommu- nication service	No.
8525.20.9040	Other radio telephones designed for the public cellular radio telecommunication service	No.
8525.20.9080	Other	X
8525.30	Television cameras:	
8525.30.0020	Color	No.
8525.30.0070	Other	No.
8525.40	Still image video cameras and other video camera recorders; digital cameras:	
8525.40.4000	Digital still image video cameras	No.
	Other:	
	Camcorders:	
8525.40.8020	8 mm	No.
8525.40.8050	Other	No.
8525.40.8085	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8526	Radar apparatus, radio navigational aid apparatus and radio remote control apparatus:	
8526.10	Radar apparatus:	
8526.10.0010	For use in civil aircraft	No.
	Other:	
8526.10.0020	Designed for boat or ship installation	No.
8526.10.0070	Other	No.
	Other:	
8526.91	Radio navigational aid apparatus:	
8526.91.0010	For use in civil aircraft	No.
	Other:	
8526.91.0030	Reception only apparatus	No.
8526.91.0070	Other	No.
8526.92.0000	Radio remote control apparatus	X
8527	Reception apparatus for radiotelephony, radiotelegraphy or radiobroadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock:	
	Radiobroadcast receivers capable of operating without an external source of power, including apparatus capable of receiving also radiotelephony or radiotelegraphy:	
8527.12.0000	Pocket-size radio cassette players	No.
8527.13	Other apparatus combined with sound recording or reproducing apparatus:	
8527.13.1100	Combinations incorporating tape players which are incapable of recording	No.
	Other:	
8527.13.2000	Radio-tape recorder combinations	No.
8527.13.4000	Radio-phonograph combinations	No.
8527.13.6000	Other	No.
8527.19.0000	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8527 (con.)	Reception apparatus for radiotelephony, radiotelegraphy or radiobroadcasting, whether or not combined, etc. –(con.): Radiobroadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles, including apparatus capable of receiving also radiotelephony or radiotelegraphy:	
8527.21.0000	Combined with sound recording or reproducing apparatus ..	No.
8527.29.0000	Other	No.
	Other radiobroadcast receivers, including apparatus capable of receiving also radiotelephony or radiotelegraphy:	
8527.31.0000	Combined with sound recording or reproducing apparatus ..	No.
8527.32.0000	Not combined with sound recording or reproducing apparatus but combined with a clock	No.
8527.39.0000	Other	No.
8527.90	Other apparatus:	
8527.90.4000	Articles designed for connection to telegraphic or telephonic apparatus or instruments or to telegraphic or telephonic networks	No.
	Other:	
8527.90.8600	Paging receivers	No.
	Other:	
	Radiotelephonic or radiotelegraphic receivers:	
8527.90.9705	For use in civil aircraft	No.
	Other:	
	Other, capable of receiving signals on frequencies:	
8527.90.9725	Not exceeding 30 MHZ	No.
8527.90.9735	Exceeding 30 MHZ but not exceeding 400 MHZ	No.
8527.90.9745	Exceeding 400 MHZ but not exceeding 1,000 MHZ	No.
8527.90.9755	Exceeding 1,000 MHZ	No.
8527.90.9775	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8528	Reception apparatus for television, whether or not incorporating radiobroadcast receivers or sound or video recording or re-producing apparatus; video monitors and video projectors:	
	Reception apparatus for television, whether or not incorporating radiobroadcast receivers or sound or video recording or reproducing apparatus:	
8528.12	Color:	
8528.12.3000	Incorporating video recording or reproducing apparatus	No.
	Other reception apparatus for television:	
	Having a picture tube:	
8528.12.6005	Combined with radiobroadcast receivers or sound recording apparatus	No.
	Other:	
8528.12.6010	Not exceeding 52 cm (20 inches)	No.
8528.12.6040	Exceeding 52 cm (20 inches)	No.
8528.12.6057	Not having a picture tube	No.
8528.13	Black and white or other monochrome:	
8528.13.0015	Combined with radiobroadcast receivers or sound or video recording or reproducing apparatus	No.
8528.13.0080	Other	No.
	Video monitors:	
8528.21.0000	Color	No.
8528.22.0000	Black and white or other monochrome	No.
8528.30	Video projectors:	
8528.30.5550	Color	No.
8528.30.9000	Black and white or other monochrome	No.
8529	Parts suitable for use solely or principally with the apparatus of headings 8525 to 8528:	
8529.10	Antennas and antenna reflectors of all kinds; parts suitable for use therewith:	
	Television:	
	Antennas:	
8529.10.2020	Receiving only	No.
8529.10.2050	Other	No.
8529.10.2090	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8529 (con.)	Parts suitable for use solely or principally with the apparatus of headings 8525 to 8528 (con.):	
8529.10 (con.)	Antennas and antenna reflectors of all kinds; parts suitable for use therewith (con.):	
8529.10.4000	Radar, radio navigational aid and radio remote control	X
8529.10.6000	Other	X
8529.90	Other:	
	Of television apparatus:	
8529.90.1000	Tuners	X
	Other:	
8529.90.3000	Parts of television cameras	X
	Other:	
8529.90.3540	Convergence assemblies, flybacks, focus coils and degaussing coils	X
8529.90.3800	Other	X
	Of radar, radio navigational aid or radio remote control apparatus:	
8529.90.4720	Of radar apparatus	X
8529.90.4740	Of radio navigational aid apparatus (except radar)	X
8529.90.4760	Other	X
8529.90.5002	Other	X
8530	Electrical signaling, safety or traffic control equipment for rail-ways, streetcar lines, subways, roads, inland waterways, parking facilities, port installations or airfields (other than those of heading 8608); parts thereof:	
8530.10.0000	Equipment for railways, streetcar lines or subways	X
8530.80.0000	Other equipment	X
8530.90.0000	Parts	X
8531	Electric sound or visual signaling apparatus (for example, bells, sirens, indicator panels, burglar or fire alarms), other than those of heading 8512 or 8530; parts thereof:	
8531.10	Burglar or fire alarms and similar apparatus:	
	Smoke detectors:	
8531.10.0015	Battery operated	No.
8531.10.0025	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8531 (con.)	Electric sound or visual signaling apparatus (for example, bells, sirens, indicator panels, burglar or fire alarms), etc. –(con.):	
8531.10 (con.)	Burglar or fire alarms and similar apparatus (con.):	
	Other:	
8531.10.0035	Burglar alarms	No.
8531.10.0045	Other	No.
8531.20	Indicator panels incorporating liquid crystal devices (LCD's) or light emitting diodes (LED's):	
8531.20.0020	Incorporating LCD's	X
8531.20.0040	Other	X
8531.80	Other apparatus:	
	Indicator panels:	
8531.80.0010	Incorporating electric discharge (fluorescent) devices	X
8531.80.0025	Other	X
8531.80.0030	Horns	X
8531.80.0040	Other sound signaling apparatus	X
8531.80.0050	Other	X
8531.90.0002	Parts	X
8532	Electrical capacitors, fixed, variable or adjustable (preset); parts thereof:	
8532.10.0000	Fixed capacitors designed for use in 50/60 Hz circuits and having a reactive power handling capacity of not less than 0.5 kvar (power capacitors)	No.
	Other fixed capacitors:	
8532.21	Tantalum electrolytic:	
8532.21.0020	Metal case	No.
	Other:	
8532.21.0040	Dipped	No.
8532.21.0050	Designed for surface mounting (chips)	No.
8532.21.0080	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8532 (con.)	Electrical capacitors, fixed, variable or adjustable (preset); parts thereof (con.):	
	Other fixed capacitors (con.):	
8532.22	Aluminum electrolytic:	
8532.22.0020	Not exceeding 18 mm diameter	No.
8532.22.0040	Exceeding 18 mm but not exceeding 35 mm in diameter	No.
8532.22.0055	Exceeding 35 mm but not exceeding 51 mm in diameter	No.
8532.22.0085	Exceeding 51 mm in diameter	No.
8532.23	Ceramic dielectric, single layer:	
8532.23.0020	Chips	No.
	Other:	
8532.23.0040	Axial leads	No.
8532.23.0060	Radial leads	No.
8532.24	Ceramic dielectric, multilayer:	
8532.24.0020	Chips	No.
	Other:	
8532.24.0040	Axial leads	No.
8532.24.0060	Radial leads	No.
8532.25	Dielectric of paper or plastics:	
	Alternating current (AC) service:	
8532.25.0010	Less than 300 V	No.
8532.25.0020	300 V or greater but less than 600 V	No.
8532.25.0030	600 V or greater but less than 1,000 V	No.
8532.25.0040	1,000 V or greater	No.
	Other:	
8532.25.0050	Leadless	No.
8532.25.0060	Axial leads	No.
8532.25.0070	Radial leads	No.
8532.25.0080	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8532 (con.)	Electrical capacitors, fixed, variable or adjustable (preset); parts thereof (con.):	
	Other fixed capacitors (con.):	
8532.29	Other:	
8532.29.0020	Mica dielectric	No.
8532.29.0040	Other	No.
8532.30	Variable or adjustable (preset) capacitors:	
8532.30.0010	Mica, ceramic and glass dielectric	No.
8532.30.0090	Other	No.
8532.90.0000	Parts	X
8533	Electrical resistors (including rheostats and potentiometers), other than heating resistors; parts thereof:	
8533.10	Fixed carbon resistors, composition or film types:	
	Designed for surface mounting (SMD) by contact:	
8533.10.0020	Having more than two terminals (resistor networks)	No.
8533.10.0042	Having two terminals	No.
8533.10.0057	Having more than two leads (resistor networks)	No.
8533.10.0070	Having two leads	No.
	Other fixed resistors:	
8533.21	For a power handling capacity not exceeding 20 W:	
	Designed for surface mounting (SMD) by contact:	
8533.21.0025	Having more than two terminals (resistor networks)	No.
8533.21.0045	Having two terminals	No.
8533.21.0075	Having more than two leads (resistor networks)	No.
	Having two leads:	
8533.21.0080	Wirewound	No.
8533.21.0090	Other (including metal film, metal oxide and thick cement film)	No.
8533.29.0000	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8533 (con.)	Electrical resistors (including rheostats and potentiometers), other than heating resistors; parts thereof (con.): Wirewound variable resistors, including rheostats and potentiometers:	
8533.31.0000	For a power handling capacity not exceeding 20 W	No.
8533.39	Other:	
8533.39.0040	Dimmers	No.
8533.39.0080	Other	No.
8533.40	Other variable resistors, including rheostats and potentiometers:	
8533.40.0040	Rheostat or resistor type motor starters and controllers	No.
8533.40.0080	Other	No.
8533.90.0000	Parts	X
8534	Printed circuits:	
	Plastics impregnated, not flexible type:	
	Having a base wholly of plastics impregnated glass:	
8534.00.0020	With 3 or more layers of conducting materials	No.
8534.00.0040	Other	No.
8534.00.0050	Having a base wholly of impregnated paper	No.
8534.00.0070	Other	No.
	Other:	
8534.00.0080	Flexible type	No.
8534.00.0085	Having a ceramic base	No.
8534.00.0095	Other	No.
8535	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (for example, switches, fuses, lightning arresters, voltage limiters, surge sup- pressors, plugs, junction boxes), for a voltage exceeding 1,000 V:	
8535.10	Fuses:	
8535.10.0020	In circuits of 2,300 V or more	No.
8535.10.0040	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8535 (con.)	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits etc. –(con.):	
	Automatic circuit breakers:	
8535.21.0000	For a voltage of less than 72.5 kV	No.
8535.29	Other:	
8535.29.0020	In circuits of 345 kV or more	No.
8535.29.0040	Other	No.
8535.30	Isolating switches and make-and-break switches:	
8535.30.0040	Knife	No.
8535.30.0080	Other	No.
8535.40.0000	Lightning arresters, voltage limiters and surge suppressors	X
8535.90	Other:	
8535.90.8020	Terminals, electrical splices and electrical couplings	No.
8535.90.8040	Other connectors	No.
8535.90.8060	Other	No.
8536	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (for example, switches, relays, fuses, surge suppressors, plugs, sockets, lamp- holders, junction boxes), for a voltage not exceeding 1,000 V:	
8536.10	Fuses:	
8536.10.0020	Glass cartridge	No.
8536.10.0040	Other	No.
8536.20	Automatic circuit breakers:	
8536.20.0020	Molded case	No.
8536.20.0040	Other	No.
8536.30.0000	Other apparatus for protecting electrical circuits	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8536 (con.)	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits etc. –(con.):	
	Relays:	
8536.41	For a voltage not exceeding 60 V:	
8536.41.0005	Automotive signaling flashers	No.
	Other:	
	With contacts rated at less than 10 A:	
8536.41.0020	Electromechanical	No.
8536.41.0030	Other	No.
	Other:	
8536.41.0045	Contactors	No.
	Other:	
8536.41.0050	Electromechanical	No.
8536.41.0060	Other	No.
8536.49	Other:	
	With contacts rated at less than 10 A:	
8536.49.0050	Electromechanical	No.
8536.49.0055	Other	No.
	Other:	
8536.49.0065	Contactors	No.
	Other:	
8536.49.0075	Electromechanical	No.
8536.49.0080	Other	No.
8536.50	Other switches:	
8536.50.4000	Motor starters	No.
	Other:	
8536.50.7000	Electronic AC switches consisting of optically coupled input and output circuits (insulated thyristor AC switches); electronic switches, including temperature protected switches, consisting of a transistor and a logic chip (chip-on-chip technology); electro- mechanical snap-action switches for a current not exceeding 11 amps	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8536 (con.)	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits etc. –(con.):	
8536.50 (con.)	Other switches (con.):	
	Other (con.):	
	Other:	
	Rotary:	
8536.50.9020	Rated at not over 5 A	No.
8536.50.9025	Rated at over 5 A	No.
	Push-button:	
8536.50.9030	Rated at not over 5 A	No.
8536.50.9035	Rated at over 5 A	No.
8536.50.9040	Snap-action, other than limit	No.
8536.50.9045	Knife	No.
8536.50.9050	Slide	No.
8536.50.9055	Limit	No.
8536.50.9065	Other	No.
	Lamp-holders, plugs and sockets:	
8536.61.0000	Lamp-holders	No.
8536.69	Other:	
8536.69.4010	Coaxial connectors	No.
8536.69.4020	Cylindrical multicontact connectors	No.
8536.69.4030	Rack and panel connectors	No.
8536.69.4040	Printed circuit connectors	No.
8536.69.5050	Other	X
8536.90	Other apparatus:	
8536.90.4000	Terminals, electrical splices and electrical couplings, wafer probers	X
	Other:	
8536.90.8010	Electrical distribution ducts	X
8536.90.8030	Junction boxes	No.
8536.90.8085	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8537	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of chapter 90, and numerical control apparatus other than switching apparatus of heading 8517:	
8537.10	For a voltage not exceeding 1,000 V:	
8537.10.6000	Motor control centers	No.
8537.10.9020	Switchgear assemblies and switchboards	No.
8537.10.9030	Numerical controls for controlling machine tools	No.
	Other:	
8537.10.9050	Panel boards and distribution boards	No.
8537.10.9060	Programmable controllers	No.
8537.10.9070	Other	No.
8537.20	For a voltage exceeding 1,000 V:	
8537.20.0020	Switchgear assemblies and switchboards	No.
8537.20.0040	Other	No.
8538	Parts suitable for use solely or principally with the apparatus of heading 8535, 8536 or 8537:	
8538.10.0000	Boards, panels, consoles, desks, cabinets and other bases for the goods of heading 8537, not equipped with their apparatus	X
8538.90	Other:	
8538.90.7020	Of automatic circuit breakers	X
	Other:	
8538.90.7040	Metal contacts	X
8538.90.7060	Other parts of switchgear, switchboards, panel boards and distribution boards	X
8538.90.7080	Other	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8539	Electric filament or discharge lamps, including sealed beam lamp units and ultraviolet or infrared lamps; arc lamps; parts thereof:	
8539.10	Sealed beam lamp units:	
8539.10.0020	Under 15.24 cm (6 inches)	No.
8539.10.0040	15.24 cm (6 inches) or over	No.
	Other filament lamps, excluding ultraviolet or infrared lamps:	
8539.21	Tungsten halogen:	
8539.21.2000	Designed for a voltage not exceeding 100 V	No.
	Other:	
8539.21.4040	Of a power less than 500 W	No.
8539.21.4080	Of a power of 500 W or more	No.
8539.22	Other, of a power not exceeding 200 W and for a voltage exceeding 100 V:	
8539.22.4000	Christmas-tree lamps	No.
	Other:	
	Of a power not exceeding 150 W:	
8539.22.8010	3-way	No.
8539.22.8030	Decorative	No.
8539.22.8050	Other, including standard household	No.
8539.22.8070	Of a power exceeding 150 W	No.
8539.29	Other:	
8539.29.2500	Designed for a voltage not exceeding 100 V	No.
8539.29.4000	Designed for a voltage exceeding 100 V	No.
	Discharge lamps, other than ultraviolet lamps:	
8539.31.0000	Fluorescent, hot cathode	No.
8539.32	Mercury or sodium vapor lamps; metal halide lamps:	
8539.32.0020	Sodium vapor	No.
8539.32.0040	Mercury vapor	No.
8539.32.0060	Other	No.
8539.39.0000	Other	No.
	Ultraviolet or infrared lamps; arc lamps:	
8539.41.0000	Arc lamps	No.
8539.49	Other:	
8539.49.0040	Ultraviolet lamps	No.
8539.49.0080	Other	No.
8539.90.0000	Parts	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8540	Thermionic, cold cathode or photocathode tubes (for example, vacuum or vapor or gas filled tubes, mercury arc rectifying tubes, cathode-ray tubes, television camera tubes); parts thereof: Cathode-ray television picture tubes, including video monitor cathode-ray tubes:	
8540.11	Color:	
	Having a video display diagonal:	
8540.11.0035	Not exceeding 50 cm (20 inches)	No.
8540.11.0070	Exceeding 50 cm (20 inches) but not exceeding 67 cm (26 inches)	No.
8540.11.0080	Exceeding 67 cm (26 inches)	No.
8540.12.0000	Black and white or other monochrome	No.
8540.20	Television camera tubes; image converters and intensifiers; other photocathode tubes:	
8540.20.2000	Cathode-ray tubes	No.
8540.20.4000	Other	No.
8540.40.0000	Data/graphic display tubes, color, with a phosphor dot screen pitch smaller than 0.4 mm	No.
8540.50.0000	Data/graphic display tubes, black and white or other monochrome	No.
8540.60	Other cathode-ray tubes:	
	Having a video display diagonal:	
8540.60.0055	Not exceeding 36 cm (14 inches)	No.
8540.60.0080	Exceeding 36 cm (14 inches)	No.
	Microwave tubes (for example, magnetrons, klystrons, traveling wave tubes, carcinotrons), excluding grid- controlled tubes:	
8540.71	Magnetrons:	
8540.71.2000	Modified for use as parts of microwave ovens	No.
8540.71.4000	Other	No.
8540.72.0000	Klystrons	No.
8540.79.0000	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8540 (con.)	Thermionic, cold cathode or photocathode tubes (for example, vacuum or vapor or gas filled tubes, mercury arc etc. –(con.): Other tubes:	
8540.81.0000	Receiver or amplifier tubes	No.
8540.89	Other:	
8540.89.0020	Gas and vapor electron tubes	No.
8540.89.0040	Diodes, triodes and tetrodes	No.
8540.89.0060	Light-sensing tubes	No.
8540.89.0080	Other tubes	No.
	Parts:	
8540.91	Of cathode-ray tubes:	
8540.91.2000	Deflection coils	X
8540.91.4000	Other	X
8540.99.0000	Other	X
8541	Diodes, transistors and similar semiconductor devices; photo-sensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes; mounted piezoelectric crystals; parts thereof:	
8541.10	Diodes, other than photosensitive or light-emitting diodes:	
8541.10.0040	Unmounted chips, dice and wafers	No.
	Other:	
8541.10.0050	Zener	No.
8541.10.0060	Microwave	No.
	Other:	
8541.10.0070	With a maximum current of 0.5 A or less	No.
8541.10.0080	Other	No.
	Transistors, other than photosensitive transistors:	
8541.21	With a dissipation rate of less than 1 W:	
8541.21.0040	Unmounted chips, dice and wafers	No.
8541.21.0080	Other	No.
8541.29	Other:	
8541.29.0040	Unmounted chips, dice and wafers	No.
8541.29.0080	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8541 (con.)	Diodes, transistors and similar semiconductor devices; photo-sensitive semiconductor devices, including etc. –(con.):	
8541.30	Thyristors, diacs and triacs, other than photosensitive devices:	
8541.30.0040	Unmounted chips, dice and wafers	No.
8541.30.0080	Other	No.
8541.40	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes:	
8541.40.2000	Light-emitting diodes (LED's)	No.
	Other diodes:	
8541.40.6010	Unmounted chips, dice and wafers	No.
	Other:	
	Solar cells:	
8541.40.6020	Assembled into modules or made up into panels	No.
8541.40.6030	Other	No.
8541.40.6050	Other	No.
	Transistors:	
8541.40.7040	Unmounted chips, dice and wafers	No.
8541.40.7080	Other	No.
	Other:	
8541.40.8000	Optical coupled isolators	No.
8541.40.9500	Other	No.
8541.50	Other semiconductor devices:	
8541.50.0040	Unmounted chips, dice and wafers	No.
8541.50.0080	Other	No.
8541.60	Mounted piezoelectric crystals:	
	Quartz designed for operating frequencies of:	
8541.60.0025	Not exceeding 20 MHZ	No.
8541.60.0060	Exceeding 20 MHZ	No.
8541.60.0080	Other	No.
8541.90.0000	Parts	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8542	Electronic integrated circuits and micro assemblies; parts thereof:	
8542.10.0000	Cards incorporating an electronic integrated circuit ("smart" cards)	No.
	Monolithic integrated circuits:	
8542.21	Digital:	
8542.21.4000	For high definition television, having greater than 100,000 gates	No.
	Other:	
	Unmounted chips, dice, and wafers:	
8542.21.8005	Silicon	No.
8542.21.8010	Other	No.
	Other:	
	Silicon:	
	Volatile memory:	
	Dynamic read-write random access (DRAM):	
8542.21.8021	Not over 1 megabit	No.
8542.21.8028	Over 1 megabit	No.
	Static read-write random access (SRAM):	
8542.21.8031	Not over 256 kilobits	No.
8542.21.8038	Over 256 kilobits	No.
	Other memory:	
8542.21.8048	Electrically erasable programmable read-only memory (EEPROM)	No.
8542.21.8058	Erasable (except electrically) program- mable read-only memory (EPROM)	No.
8542.21.8060	Other	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8542 (con.)	Electronic integrated circuits and micro assemblies; parts thereof (con.):	
	Monolithic integrated circuits (con.):	
8542.21 (con.)	Digital (con.):	
	Other (con.):	
	Other (con.):	
	Silicon (con.):	
	Other, including microprocessors, controllers, application specific integrated circuits (ASIC), and programmable logic arrays (PLA):	
	Microprocessors having an internal data bus of:	
8542.21.8071	8 bits or less	No.
8542.21.8072	16 bits	No.
8542.21.8079	32 bits or over	No.
8542.21.8088	Other	No.
	Other than silicon:	
8542.21.8091	Memory	No.
8542.21.8099	Other, including logic	No.
8542.29	Other:	
8542.29.0010	Unmounted chips, dice, and wafers	No.
	Other:	
8542.29.0020	With an operating frequency not less than 100 MHZ	No.
	Other:	
	Mixed signal (analog/digital):	
8542.29.0030	Logic	No.
8542.29.0040	Other	No.
8542.29.0050	Other	No.
8542.60	Hybrid integrated circuits:	
8542.60.0075	With an operating frequency not less than 30 MHZ	No.
8542.60.0095	Other	No.
8542.70.0000	Electronic microassemblies	No.
8542.90.0000	Parts	X

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8543	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof:	
	Particle accelerators:	
8543.11.0000	Ion implanters designed for doping semiconductor materials	No.
8543.19.0000	Other	No.
8543.20.0000	Signal generators	No.
8543.30.0000	Machines and apparatus for electroplating, electrolysis or electrophoresis	X
8543.40.0000	Electric fence energizers	No.
	Other machines and apparatus:	
8543.81.0000	Proximity cards and tags	X
8543.89	Other:	
	Physical vapor deposition apparatus:	
8543.89.1000	Machines for processing of semiconductor materials; machines for production of diodes, transistors and similar semiconductor devices and electronic integrated circuits	No.
8543.89.2000	Other	No.
8543.89.4000	Electric synchros and transducers; flight data recorders; defrosters and demisters with electric resistors for aircraft	X
8543.89.6000	Articles designed for connection to telegraphic or telephonic apparatus or instruments or to telegraphic or telephonic networks	X
8543.89.7000	Electric luminescent lamps	No.

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8543 (con.)	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; etc. –(con.): Other machines and apparatus (con.):	
8543.89 (con.)	Other (con.):	
	Other:	
8543.89.8000	Microwave amplifiers	No.
	Other:	
8543.89.8500	For electrical nerve stimulation	No.
	Other:	
8543.89.9620	Resistor/capacitor networks	No.
8543.89.9660	Amplifiers	No.
8543.89.9670	Special effects pedals for use with musical instruments	No.
8543.89.9690	Other	X
8543.90	Parts:	
8543.90.1000	Of physical vapor disposition apparatus	X
8543.90.8040	Of particle accelerators	X
8543.90.9500	Other	X
8544	Insulated (including enameled or anodized) wire, cable (including coaxial cable) and other insulated electrical conductors, whether or not fitted with connectors; optical fiber cables, made up of individually sheathed fibers, whether or not assembled with electric conductors or fitted with connectors:	
	Winding wire:	
8544.11	Of copper:	
8544.11.0020	33 AWG (0.18 mm in diameter) and finer	kg
8544.11.0030	22 AWG (0.64 mm in diameter) and finer but larger than 33 AWG (0.18 mm in diameter)	kg
8544.11.0050	Other	kg
8544.19.0000	Other	kg

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8544 (con.)	Insulated (including enameled or anodized) wire, cable (including coaxial cable) and other insulated electrical etc. –(con.):	
8544.20.0000	Coaxial cable and other coaxial electric conductors	kg
8544.30.0000	Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft or ships	X
	Other electric conductors, for a voltage not exceeding 80 V:	
8544.41.0000	Fitted with connectors	X
8544.49.0000	Other	kg
	Other electric conductors, for a voltage exceeding 80 V but not exceeding 1,000 V:	
8544.51.0000	Fitted with connectors	X
8544.59	Other:	
	Of copper:	
8544.59.2040	For a voltage exceeding 600 V	kg
8544.59.2080	Other	kg
8544.59.4000	Other	kg
8544.60	Other electric conductors, for a voltage exceeding 1,000 V:	
8544.60.2000	Fitted with connectors	X
	Other:	
8544.60.4000	Of copper	kg
8544.60.6000	Other	kg
8544.70.0000	Optical fiber cables	fbr m
8545	Carbon electrodes, carbon brushes, lamp carbons, battery carbons and other articles of graphite or other carbon, with or without metal, of a kind used for electrical purposes:	
	Electrodes:	
8545.11.0000	Of a kind used for furnaces	kg
8545.19.0000	Other	kg
8545.20.0000	Brushes	kg
8545.90.0000	Other	kg

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8546	Electrical insulators of any material:	
8546.10.0000	Of glass	No.
8546.20	Of ceramics:	
	Used in high-voltage, low-frequency electrical systems:	
8546.20.0030	Commonly known as suspension, pin-type or line post insulators	No.
8546.20.0060	Other	No.
8546.20.0090	Other	No.
8546.90.0000	Other	No.
8547	Insulating fittings for electrical machines, appliances or equip- ment, being fittings wholly of insulating material apart from any minor components of metal (for example, threaded sockets) in- corporated during molding solely for purposes of assembly, other than insulators of heading 8546; electrical conduit tubing and joints therefor, of base metal lined with insulating material:	
8547.10.0000	Insulating fittings of ceramics	No.
8547.20.0000	Insulating fittings of plastics	No.
8547.90	Other:	
8547.90.0010	Other insulating fittings (except of ceramics or plastics)	No.
	Electrical conduit tubing and joints therefor, of base metal lined with insulating material:	
8547.90.0020	Conduit tubing (rigid or flexible)	kg
	Joints:	
8547.90.0030	Threaded	kg
8547.90.0040	Other	kg

Section XVI – Chapter 85

Schedule B No. and Headings	Commodity Description	Unit of Quantity
8548	Waste and scrap of primary cells, primary batteries and electric storage batteries; spent primary cells, spent primary batteries and spent electric storage batteries; electrical parts of machinery or apparatus, not specified or included elsewhere in this chapter:	
8548.10	Waste and scrap of primary cells, primary batteries and electric storage batteries; spent primary cells, spent primary batteries and spent electric storage batteries:	
	Spent primary cells, spent primary batteries and spent electric storage batteries:	
	For recovery of lead:	
8548.10.0540	Lead-acid storage batteries, of a kind used for starting engines	No. kg
8548.10.0580	Other	No. kg
8548.10.1500	Other	kg
	Other:	
8548.10.2500	For recovery of lead	No. kg
8548.10.3500	Other	kg
8548.90.0000	Other	X